ABSTRACT OF DISCLOSURE

The transmissivity of an fθ lens which is used as a means for converging laser light differs in the center and in the edge thereof. As a result, when the fθ lens is used as it is with the purpose of crystallizing by laser irradiation, energy distribution of the laser light which is irradiated on the semiconductor film is not uniform so that the whole surface of the semiconductor film could not be irradiated uniformly. Therefore, the present invention provides a laser irradiation apparatus including a galvanometer mirror and an fθ lens that can offset the change of the energy due to the change of transmissivity of the fθ lens and can scan the laser light while controlling the change of the energy on the object to be irradiated. Moreover, the invention provides a manufacturing method of a semiconductor device including the laser irradiation apparatus described above.